

EXHIBIT 2

Supplemental Affidavit of Marius Schwartz on Behalf of the U.S. Department of Justice

**THE "OPEN LOCAL MARKET STANDARD" FOR AUTHORIZING
BOC INTERLATA ENTRY: REPLY TO BOC CRITICISMS**

by

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Supplemental Affidavit on behalf of U.S. Department of Justice

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Professional Background

1. My name is Marius Schwartz. I am a Professor of Economics at Georgetown University. I received my B.Sc. degree with first-class honors from the London School of Economics and my Ph.D. in economics from the University of California at Los Angeles. My research areas are in industrial organization, antitrust and regulation. I have published on these subjects and have taught courses in these areas to students and to executives and government officials in the U.S. and other countries.
2. From April 1995 to June 1996, I was the senior staff economist at the President's Council of Economic Advisers responsible for antitrust and regulated industries. Much of my work was on regulatory reform in telecommunications, and I participated in the development of the Administration's policy leading up to the enactment of the 1996 Telecommunications Act. From 1980 to the present, I have served intermittently as a consultant to the Antitrust Division of the Department of Justice on a variety of competition matters. I have also consulted for international agencies and private companies. My curriculum vitae is attached as Exhibit 1.
3. I submitted an affidavit to the Federal Communications Commission on behalf of the U.S. Department of Justice ("DOJ") in connection with the application by SBC to provide interLATA services in Oklahoma, and of Ameritech to provide such services in Michigan.¹

¹ Affidavit of Marius Schwartz, "Competitive Implications of Bell Operating Company Entry into Long-Distance Telecommunications Services," May 14, 1997, filed with the FCC as an appendix to the Department of Justice's evaluation of SBC's application to provide interLATA services in Oklahoma, May 16, 1997 (In the Matter of Application of SBC Communications, Inc. Pursuant to Section 271 of the Telecommunications Act of 1996 to Provide In-Region, InterLATA Services in Oklahoma, CC Docket 97-121), and of Ameritech's application in Michigan, June 25, 1997 (In the Matter of Application of Ameritech Michigan Pursuant to Section 271 of the Telecommunications Act of 1996 to Provide In-Region, InterLATA Services in the State of Michigan, CC Docket 97-137). The affidavit is available on the Internet at: www.usdoj.gov/atr/statements/Affwp60.htm.

Scope and Purpose of This Affidavit

4. My original affidavit analyzed the competitive implications of authorizing BOC in-region interLATA entry and explained why the Department of Justice's Open Local Market standard for authorizing such entry ("DOJ standard" or "Open Local Market standard") is economically sound. That standard requires the local market in the applicant BOC's state to have been fully and irreversibly opened to competition through all three entry modes envisioned by the Telecommunications Act—facilities based, resale, and unbundled network elements.

5. The most reliable demonstration of such opening is observing meaningful local entry of all three modes. Failing that, one looks to verify that the main conditions for an open market are in place. These are: (1) meaningful implementation of the competitive checklist items, notably establishment of the various new wholesale systems (such as Operations Support Systems) and network unbundling needed to facilitate local competition, and demonstration—over a duration sufficient to yield useful performance benchmarks—that these systems are capable of functioning under real business conditions and of being scaled up appropriately to accommodate entrant demand; (2) assurance that BOC prices for inputs needed by local entrants (interconnection, unbundled network elements) will remain reasonable and cost based after BOC interLATA entry is approved; and (3) the absence of major state or local regulatory barriers or any other barriers likely to significantly impede competition.

6. This standard has since been criticized by both BOCs and IXC. From the IXC end, the standard is criticized as too permissive. It allegedly understates the danger that premature BOC entry poses to competition in the long-distance market by overstating the efficacy of regulatory safeguards, and therefore errs in not requiring effective local competition as a prerequisite for authorizing BOC entry.² As I explained, however, effective local competition—while it may be the appropriate standard for complete deregulation—is an overly stringent standard for allowing BOC entry subject to ongoing regulatory and antitrust safeguards. (Schwartz Affidavit, ¶¶ 150-153.) Such safeguards

² See, e.g., Comments of MCI Telecommunications Corporation, CC Docket No. 97-137 (June 10, 1997) and Reply Comments of MCI Telecommunications Corporation, CC Docket No. 97-121 (May 27, 1997).

will remain available after BOC entry is authorized.

7. The more numerous criticisms have come from the other end: the BOCs and their economic experts argue that the standard is too restrictive and unworkable. The present affidavit addresses those criticisms.³

I. WHY BENEFITS FROM THE "OPEN MARKET STANDARD" ARE LIKELY TO SUBSTANTIALLY OUTWEIGH THE COSTS

8. Rather than respond to the BOC experts individually, I focus on their main criticisms of the DOJ standard—as they portray it:

- (a) *The standard needlessly delays BOC interLATA entry.* Such delay is not necessary to advance local competition and may retard local competition—by giving IXC's strategic incentives to hold back from aggressively entering local markets for fear that doing so would hasten approval of BOC entry. (Kahn and Tardiff Reply Aff., ¶¶ 62, 64.)
- (b) *The standard is overly regulatory and involves micro-management by the DOJ.* (Kahn and Tardiff Reply Aff., ¶ 65.) Rather than letting competition determine market outcomes, it requires actual success of competitors to demonstrate that the market is open. For example, it requires metric tests of local competition—a BOC

³ See, e.g., in the Oklahoma proceeding, Reply Affidavit of Alfred E. Kahn and Timothy J. Tardiff on behalf of SBC, May 20, 1997 ("Kahn and Tardiff"), and SBC's Response to DOJ's Evaluation, May 27, 1997 ("SBC Response"). In the Michigan proceeding, see: Reply Affidavit of BellSouth in support of Ameritech's application ("BellSouth Reply, Michigan"), July 7, 1997, and the appended Declaration of Jerry Hausman ("Hausman 1"); and the following submissions on behalf of Ameritech: Affidavit of Robert Crandall and Leonard Waverman, April 11, 1997 ("Crandall and Waverman") and Reply Affidavit, July 3, 1997 ("Crandall and Waverman Reply"); Reply Affidavit of Richard J. Gilbert and John C. Panzar, July 2, 1997 ("Gilbert and Panzar"); and Reply Affidavit of Paul W. MacAvoy, July 2, 1997 ("MacAvoy"). In the application by BellSouth in South Carolina, see: Affidavit of Richard J. Gilbert, September 30, 1997 ("Gilbert"); Declaration of Jerry A. Hausman, September 30, 1997 ("Hausman 2"); and Declaration of Richard L. Schmalensee, September 30, 1997 ("Schmalensee"), all on behalf of BellSouth.

must lose a certain number of customers in order to prove that new wholesale support systems work. (SBC Response, at 13.) And it requires observing all three entry modes—through own facilities, unbundled elements, and resale—in order to prove that market is open to all these three modes. (Gilbert and Panzar Reply Aff., ¶ 9.)

- (c) *The costs resulting from the delay of BOC entry caused by the restrictive DOJ standard are huge and outweigh any benefits.* All BOC experts referenced in footnote 3 make this claim, explicitly or implicitly. For example, Professor Kahn and Dr. Tardiff assert: “Perhaps most fundamentally, Professor Schwartz’s conclusion that the benefits from delay outweigh the cost is speculative...he has provided no basis whatever for an objective assessment of the comparative benefits or losses...” (Kahn and Tardiff Reply Aff., ¶ 65.)

9. Let me begin by refuting the last and most important point. It is true that my affidavit did not attempt to explicitly quantify the benefits or costs of delayed BOC entry. While I am sympathetic to attempts by some BOC experts to try and quantify such effects, forecasts are only as good as their underlying assumptions. Given the tremendous uncertainty involved in the case at hand, forecasting exercises are inherently speculative. Moreover, as I will show in Part II of this affidavit, some forecasts of the benefits of BOC entry produce the illusion of precision, when in fact they hinge on dubious assumptions that cause the estimates of the benefits to be grossly inflated.

10. Instead of speculative forecasting, my affidavit highlighted transparent and robust factors which are likely to ensure that, under a range of plausible assumptions, the benefits of delaying BOC entry as necessary to implement the key measures needed to open local markets will significantly outweigh the costs. To reiterate my argument, these key factors are as follows:

Different current conditions in the local and interLATA markets

A. The “local market” refers to the full set of services that require access to LECs’ underlying local network facilities, including basic local service, exchange access, and “vertical” services. The local market, so defined, is considerably larger than the interLATA market. In addition, the local market is a regulated monopoly rife with distortions, while the long-distance market is far more competitive. For both reasons, the scope for improving economic performance by increasing the degree of competition is considerably greater in the local market than in long distance.

Differential impact of Open Market Standard on competition in the two markets

B. The standard would advance local competition much more rapidly and efficiently than would a weaker entry standard that did not insist on significant BOC cooperation as a condition for opening local markets but instead relied largely on post-entry measures.

C. In contrast, the standard need not impose a significant delay of BOC interLATA entry. The extent of delay in BOC entry is largely under BOC control and in most cases could be modest if the BOCs cooperate in implementing the measures required by the Act as important for facilitating local competition.

11. In short, the above logic implies that adhering to the Open Market Standard rather than a more permissive alternative will yield large benefits in advancing local competition at the expense of comparatively modest and short-lived costs in the long distance market; moreover, authorizing BOC entry while failing to open local markets to competition could over time pose growing risks also to long distance competition.

12. This logic also addresses BOC criticisms that delaying BOC entry imposes intolerable costs

by delaying the availability of integrated services—the provision by a supplier of local and long distance services (and perhaps other services as well). It is widely acknowledged that integrated services are valuable to consumers (e.g., one-stop shopping) and can reduce retailing costs for suppliers, and I noted in my initial affidavit that delaying BOC interLATA entry and thus BOCs' ability to offer such services comes at a cost. But this cost is short lived, and is outweighed by the benefit: instead of leaving provision of integrated services as a monopoly of the local BOC, opening the local market enhances the ability of all other providers to compete for providing integrated services. Therefore, if one views integrated services as important, then permitting broad competition in their provision—by making currently monopolized local inputs and services widely and efficiently available to competitors—should be a central goal of good public policy.

13. The remainder of Part I of this affidavit elaborates on points A through C above. In so doing, it addresses the previously mentioned BOC criticisms, and corrects some misconceptions about the DOJ's Open Market Standard and its implementation. Part II examines more closely some inflated claims about foregone benefits in the long distance markets from delaying BOC entry. Part III concludes that the DOJ Standard indeed is likely to advance the competition goals of the Telecommunications Act more effectively than would a more permissive entry standard.

A. The Larger Potential Gains from Increasing Competition in the Local Market Than in the InterLATA Market

14. My affidavit discussed at length the potentially significant benefits of BOC entry. (Schwartz Aff., ¶¶ 7, 59-61, 82-98.) I noted that these benefits might include: enabling the BOCs to realize savings on retailing costs by jointly offering local and long-distance services; providing consumers the benefits of one-stop shopping and other integrated services (such as new bundles of services); and increasing the degree of competition in long-distance markets. Indeed, various BOCs and their experts have quoted my affidavit extensively on this point, as supposedly confirming that the DOJ standard imposes intolerable costs by delaying the realization of such efficiencies. This inference, however, is incorrect: one must consider not only the costs that the DOJ standard might impose relative to a more permissive standard, but also its benefits in promoting local competition.

15. The goal of the 1996 Telecommunications Act is to open *all* markets to competition. This includes, in particular, the local market which is both much larger than long-distance and is currently the least open to competition. It is important not to lose track of this point—the key bottleneck that needs to be unclogged is in the local market. As I explained in my affidavit, an appropriate standard for BOC interLATA entry can play a key role in advancing the Act's local competition objectives: incumbents' cooperation is vital in opening local markets, and cooperation will be secured more effectively through a Section 271 standard that conditions entry on the prior implementation of key market-opening measures.

16. Thus, in evaluating the DOJ standard it is imperative to address the benefits from permitting accelerated development of competition in local services, and therefore also in integrated services—whose provision requires access to the currently-monopolized local services and inputs of LECs. It is bad policy to consider only the possible costs of delaying BOC entry, without recognizing the tradeoff involved. The remainder of this Section A explains why the potential benefits of increasing competition in the local market are so much greater than the potential losses in the long distance market from delaying BOC entry. Unfortunately, BOC experts are silent on the benefits of local competition, or even contend that the Open Market standard for BOC interLATA entry can play no major role in fostering local competition and could even retard it. I refute these claims in Section B, and in Section C, I refute the claims that the delay in BOC entry is likely to be unduly long.

1. The Local Market Is Much Larger

17. Some BOC experts as well as other commentators frequently refer to the "\$76 billion long-distance market." This is an unfortunate exaggeration: in 1995, long-distance carriers' revenues were \$76 billion (\$73 billion was from interLATA services, including international), but \$26 billion was paid to the BOCs and other incumbent local exchange carriers (LECs) in access charges. Including these access charges for interLATA and intraLATA toll calls, LECs' total revenues exceeded \$100 billion. (Schwartz Aff., ¶ 31 and Table 1.) In revenue terms the local market is

therefore about *twice as large* as long-distance.⁴ The local market is also considerably larger by various other measures, *e.g.*, employment and embedded capital. Thus, the markets from which BOCs are temporarily precluded—interLATA services—are considerably smaller than the local markets which we are attempting to open to competition. The same *percentage* improvement in economic performance in both markets in response to increased competition would therefore generate considerably greater *total* benefits in the local market.

2. The Local Market is Largely a Regulated Monopoly, While the InterLATA Market Is Substantially More Competitive

18. Putting aside the much larger size of the local market, there is much more room to improve economic performance in the local market than in the interLATA market by fostering additional competition—because of the different current competitive conditions in the two markets. The interLATA market is substantially more competitive (though certainly not perfectly competitive) and largely unregulated. Moreover, absent consolidation, long-distance competition will continue to increase even without BOC entry. By contrast, the local market is largely a regulated monopoly rife with distortions. The fundamental tenet of the Telecom Act is that, as a vehicle for delivering good economic performance, competition is far superior to regulated monopoly. Thus, even a modest dose of increased competition in the local market can be expected to generate major benefits—in the form of reduced costs, improved quality, increased variety of offerings, rationalization of the price structure in local markets, as well as spillover benefits in adjacent markets for interexchange and integrated services.

19. The BOCs' own experts, in justifying their estimates of the gains that BOC entry would bring

⁴ In 1996, long-distance carriers' revenues rose to \$82 billion, and \$58.4 billion net of access charges (compared to \$50 billion in 1995). Federal Communications Commission, *Preliminary Statistics of Communications Common Carriers*, at Tables 1.4, 2.9 (1997). Total LEC operating revenues were, according to Table 2.9, \$100.7 billion (\$78.7 billion for the BOCs). The FCC's *TRS* data, however, which was used in computing Table 1 of my earlier affidavit, would likely give the LECs a higher revenue in 1996 than the \$100.7 billion reported by *SCCC* (in 1995, *TRS* put LECs' revenue at the \$102.8 billion cited in my Table 1, while the *SCCC* put it at only \$95.6 billion.) Thus, the two-to-one revenue relationship between the local and long distance markets is approximately preserved in 1996.

by stimulating interLATA competition, identify substantial benefits that increased competition has brought in other industries. Dr. Robert Crandall and Professor Leonard Waverman, in their affidavit on behalf of Ameritech in Michigan (April 1997), survey the effect of increased competition in several previously tight oligopolies (in their view): the U.S. luxury car market; the U.S. carbon steel industry; the U.K. mobile telecom market; long distance telecom services in Chile; and interLATA and intraLATA services in Connecticut. In all cases they report impressive gains in economic performance.

20. For example, Japanese entry into the U.S. luxury car markets in the early 1990s led to "quality improvements and innovation..." by all producers (Crandall and Waverman Aff., ¶¶ 19). Competition by steel producing minimills in the U.S. led them to cut prices by about 20% more than the dominant vertically integrated steel producers for "long" products (such as rebars and wire rods) in the 1970s and early 1980s (*id.*, ¶ 27); and served to reduce industry prices for sheet steel products between 1970-1994 by about 9% (*id.*, ¶ 31). Entry by two additional cellular providers into the previous U.K. duopoly since 1993 stimulated innovation in pricing, such as the introduction of "location pricing" (*id.*, ¶ 39) and reduced the effective rate per minute (total fixed and variable charges averaged over the number of minutes) paid by business subscribers in peak periods by about 32% (*id.*, ¶¶ 40-41). In Chile, liberalization was introduced in 1994 and "[b]y September 1996, average long distance rates had fallen by more than 50 percent. . ." (*id.*, ¶ 48). And the entry of SNET into interLATA (interstate) services in Connecticut in 1994 "has resulted in effective reductions in intrastate toll rates of at least 10 percent per year" (*id.*, ¶ 58) as AT&T responded by cutting its intrastate rates rather than interstate rates, which are subject to national geographic averaging requirements. (The SNET experience is discussed further in Part II of this affidavit.)

21. I agree wholeheartedly that increasing competition in an industry is likely to deliver substantial economic benefits to consumers. My only quarrel on this score with BOC experts is this: if additional competition can deliver such impressive gains in oligopolies, why do they not expect even greater benefits from stimulating competition in local BOC markets that today are largely *monopolies*?

22. The objection that fewer gains can be expected because BOC prices are regulated, and in some cases are set perhaps even below incremental cost (e.g., for basic residential service at least in rural areas), is not persuasive. The very premise of the Telecommunications Act is that regulated

monopoly is a vastly inferior institution to competition. The gains from competition can be expected to come from the usual stimulus that competition provides to improve productivity and thereby cut cost; to offer innovative products and services (including new pricing options for existing services), and to improve quality. These benefits can be expected to be at least as large in local telecommunications markets that are starting from a position of far less competition than many if not all the examples cited by Crandall and Waverman. Moreover, competition can deliver still further gains, by reducing the need for cumbersome regulation that can reduce firms' incentives to operate efficiently and their flexibility to do so.

23. While these gains may not show up, at least initially, in lower prices for particular services whose prices are being held below incremental costs (such as may well be the case for basic residential service in some places), competition will deliver substantial benefits overall. *Lower prices* will emerge for services that today are substantially overpriced, thereby benefitting consumers as well as increasing overall welfare by stimulating usage of such services. Such over-priced services include: intraLATA toll; "vertical" services (caller ID, call waiting); high speed lines such as ISDN (in some states); and exchange access for interLATA services. Moreover, as universal service subsidies become competitively neutral and available to entrants and not solely to incumbent LECs, competitive forces should enhance efficiency also in the provision of the currently under-priced services. Consumers will enjoy *better customer service* (such as 24 hour customer service currently offered by IXCs, as opposed to nine-to-five hours offered by many LECs). And consumers will benefit from expanded options of products and services. Indeed, the BOCs themselves have acknowledged that competition from Competitive Access Providers have prompted the BOCs to upgrade their own offerings.⁵

24. Professor David Newbery reports some revealing statistics about the scope for improved productivity that competition can spur.⁶ British Telecommunications (BT) was privatized in 1984,

⁵ "This competition (from CAPs) was driving the Bell companies to lower the price *and raise the quality* (emphasis added) of their local exchange services even before the 1996 Act." Joint Response of Bell Atlantic and US West to letter from then acting Assistant Attorney General Joel Klein, December 13, 1996, 32-33.

⁶ David M. Newbery, "Privatization and Liberalization of Network Utilities," Presidential Address to the Eleventh Annual Congress of the European Economic Association, Istanbul, August 22, 1996, available as Working Paper No. 9620, Department of Applied Economics, University of Cambridge. See also OFTEL,

but there was little change in its rate of growth of productivity relative to UK manufacturing as a whole after privatization until the entry of a large number of new competitors after the "Duopoly Review" in 1991, which allowed additional entry into long distance (beyond the initial BT and Mercury duopoly), and competitive facilities entry into local markets. Professor Newbery's work suggests that the ratio of BT's productivity per worker relative to that of the UK manufacturing industry rose only a few percent from 1984 to 1991, but about 30 percent from 1992 to 1995.⁷

25. In short, economic theory as well as evidence from other industries lead one to expect substantial gains from introducing more competition into today's heavily regulated and predominantly monopoly local markets, and a subsequent move towards more light-handed regulation. Indeed, the emergence of competition could permit greater efficiencies also from BOC interLATA entry, by making it appropriate to reconsider the design of safeguards such as strict separate affiliate requirements (§ 272) that are deemed necessary in a less competitive environment but that entail certain inefficiencies. Thus, large improvements in economic performance are likely to flow from the accelerated development of local competition made possible by appropriately conditioning BOC interLATA entry on prior implementation of market-opening measures.

Consultative Document, Pricing of Telecommunication Services from 1997, Annex B, Table B2(a) (1997).

⁷ Newbery's Figure 3 also shows that even more dramatic acceleration in the rate of productivity growth was observed in the *electricity* sector, following its privatization—which was coupled with the introduction of competition in both the generation and supply functions (but not transmission or local distribution). Since privatization of BT was not by itself sufficient to generate large productivity improvements, a reasonable inference is that a large part of the gains in electricity also can be attributable to the advent of competition.

B. The Open Market Standard Advances Local Competition More Rapidly and More Efficiently Than Would a Weaker Entry Standard

26. BOC experts maintain that the Open Market Standard may delay local competition; that one could and should permit BOC interLATA entry and rely on post-entry safeguards against BOC conduct to open local markets; and that the Standard entails unnecessary intrusive regulation. This section rebuts these contentions. Subsection 1 addresses claims that the Standard induces potential entrants to strategically delay their own entry into local markets. Subsection 2 explains that local entry requires not only incentives but also ability, and that the ability of entrants to enter rapidly and efficiently hinges on incumbents' cooperation. Subsection 3 notes the dangers of relying primarily on post-entry enforcement to secure opening of local markets, rather than requiring sufficient market opening measures as a precondition for authorizing BOC interLATA entry. Subsection 4 explains why, by insisting on such measures as a precondition, the Open Market Standard will ultimately *reduce* the need for intrusive regulation.

1. Alleged Incentives for Strategic Delay by Local Entrants

27. BOC experts argue that authorizing BOC interLATA entry is likely to accelerate rather than delay local competition, by removing the alleged incentive of the major IXCs to strategically postpone their own local entry for fear that it would trigger approval of BOC interLATA entry. Indeed, various BOC experts cite this strategic incentive rather than BOC-mounted barriers as the main cause of the slow development of local competition. This argument is erroneous for several reasons.

28. First, the Open Market Standard does not require local entry by IXCs. Indeed, the DOJ has made clear that its standard does not require entry by any particular competitor.⁸ As explained in Section C below, the extent and diversity of actual local competition that is observed does establish—and properly so—important presumptions for whether the market indeed is open. But the standard recognizes that lack of entry may be due to independent business decisions unrelated to

⁸ See DOJ Oklahoma Section 271 Evaluation at 41, 48-50.

artificial entry barriers. For this reason, the Open Market Standard can support entry, even if no competitor chooses to enter, so long as the BOC has established that the absence of entry is not due to the artificial barriers to competition that the Act intended to eliminate.⁹

29. Second, whatever the merit of the claim about strategic delay incentives of IXC's, one must distinguish between IXC's and other potential local competitors ("CLEC's") that are absent from the long distance market. Such CLEC's have no long-distance base to protect and thus would have considerably weaker incentives to delay their local entry for purposes of delaying BOC interLATA authority.¹⁰ Moreover, it is difficult to believe that such diluted incentives could suffice to induce *all* potential local entrants—including CLEC's that have no major initial business in either the long distance or local markets—to hold back on expanding aggressively into the local market. If other entrants were to engage in such strategic delay then, assuming the local market were truly open to competition, it would pay any firm that currently has no presence (or only a small one) in the local and long distance markets to enter the local market aggressively to seize market share and exploit any first-mover advantages.

30. Third, the theory that local entry is delayed primarily due to CLEC's' reluctance to trigger approval of BOC interLATA authority is not supported by the experience in states where non-BOC LEC's already offer interLATA services. In Connecticut, SNET has offered interLATA services for several years. Therefore, the strategic delay motive that BOC experts allege should be considerably weaker in SNET's territories, at least for smaller, non-IXC CLEC's. Yet the extent of local entry, including by small, non-IXC CLEC's, has, to my knowledge, been no greater than in BOC states.

⁹ Among other things, the BOC must demonstrate that at the time of application it has made wholesale support systems legally and practically available at appropriate prices and levels of performance; benchmarked such performance; and demonstrated that such systems can be scaled or extended to meet future demand. On the DOJ Standard, see DOJ Oklahoma Section 271 Evaluation at 27-29, 41, 48-50.

¹⁰ Conceivably, even such entrants may gain somewhat by delaying BOC entry. Delaying BOC entry *might*: (a) allow such CLEC's to extract from state commissions additional measures to open local markets prior to authorizing the BOC interLATA entry; or (b) delay IXC's' entry into local markets (if BOC experts are correct about IXC's' strategic incentives to refrain from local entry in order to delay BOC's interLATA authority), for purposes of forestalling the IXC's as competitors to the CLEC's in local markets. But such incentives would be rather weak and, as explained in the text, are unlikely to outweigh the benefits to a CLEC of accelerating its own local entry.

Similarly, to my knowledge local entry into GTE's territories in California has not been greater than into those of Pacific Bell, even though Pacific Bell is still precluded from offering interLATA services, while GTE, like SNET, already may and does offer such services. Nor has there been more entry into GTE's Florida territories than into most other urban regions.

31. In short: (a) the alleged incentives of IXC's to strategically delay their local entry in order to delay triggering BOC interLATA entry would not apply nearly as much to other potential local entrants; (b) the strategic incentive theory is not supported by the facts; and both IXC's and other potential local entrants are equally adamant about BOC-imposed entry barriers and the need to withhold BOC interLATA authority until the local market is opened.¹¹ A reasonable reading of the evidence in the SBC and Ameritech applications is that the respective BOCs have failed to undertake fully the major market-opening measures required by the Act. Thus, the main issue is *ability* to enter.

2. The Ability of Local Entrants to Enter Rapidly and Efficiently Hinges on BOC Cooperation

32. As mentioned, some BOC experts argue that BOC interLATA entry would force IXC's to accelerate their own facilities-based entry into local markets in order to better compete in offering one-stop shopping and other integrated services. But the policy objective articulated in the 1996 Act is not the promotion of facilities-based entry at all costs; forcing entrants to build duplicative facilities, such as local loops everywhere, is neither practical in the foreseeable future nor desirable. Rather, the goal of the Act's local competition sections is to elicit the requisite cooperation from incumbent LECs so that entry can occur as rapidly and efficiently as is dictated by technological conditions and market opportunities. As I explained in my initial affidavit, BOC cooperation would be vital to all entrants, regardless of which of the three entry modes envisioned in the Act they seek to employ (¶¶

¹¹ See Motion To Dismiss by the Association For Local Telecommunications Services (June 10, 1997), Opposition of Brooks Fiber Communications of Michigan to Ameritech's Application (June 10, 1997), Comments of WorldCom, Inc. in Opposition to Ameritech-Michigan Application for InterLATA Authority (June 10, 1997).

8, 52-57).

33. Professor Kahn and Dr. Tardiff take exception to the notion that BOC cooperation is important for local entry. They write: "One need look no further than Professor Schwartz's intraLATA toll example to see why specific requirements may not be necessary for competition to develop. Despite the fact that dialing parity has not been universally required, the IXCs have already captured 22 percent of the market nationwide..."¹² (Schwartz Aff. ¶ 62.) Unfortunately, they neglect the main part of my intraLATA toll discussion (¶¶ 141-143), which demonstrates precisely the reverse of what they claim. The point of that discussion is that intraLATA toll dialing parity offers a compelling case study of incumbents' ability and incentive to stall the introduction of new arrangements important to local competition.

34. The BOCs repeatedly and successfully delayed the introduction of dialing parity, long after it was determined to be in the public interest. In Minnesota, the delay caused by repeated legal and administrative challenges was close to a decade. Presumably the BOCs would not have resisted dialing parity so bitterly if they had perceived it as inconsequential to entrants' success. And experience proves them right. In Minnesota, for example, the share of the one major IXC that I checked with approximately tripled within six months after intraLATA dialing parity was introduced. Thus, the issue is not whether IXCs succeeded in capturing 22% of the intraLATA toll revenue nationwide—which is an average figure across states that do have dialing parity and those that do not—even without ubiquitous dialing parity, but what their market share and competitive influence *would have been with ubiquitous dialing parity*. Judging by BOCs' vigorous resistance and by the Minnesota evidence, the impact would have been considerably greater. Indeed, beyond competitors' greater success following the introduction of dialing parity, there is also evidence that introducing dialing parity reduces prices substantially.¹³

¹² For the 22 percent figure, they cite p. 11, fn. 4 of my affidavit, which reported 1995 intraLATA toll revenues of about \$3.3 billion to IXCs v. \$10.1 billion for ILECs.

¹³ For example, the Michigan Attorney General said that in Illinois, Ameritech customers pay only 0.4 cents per minute above access charges for intraLATA toll with full dialing parity; whereas they pay 10 cents per minute above access charges for intraLATA toll in Michigan without full dialing parity. He also indicated that prices in Illinois fell from 12 cents per minute to 3 cents per minute on the introduction of dialing parity. *Ameritech Michigan v. Michigan Public Service Commission*, Michigan Supreme Court No. 110338, Attorney General Frank J. Kelley's Response at 3, ¶ 6 (Sept. 2, 1997) and statement issued on July 23, 1997

35. An additional example of the BOCs' perception of the significance of intraLATA toll dialing parity may be found in Michigan. The Michigan Public Service Commission (MPSC) issued an order requiring Ameritech to implement statewide intraLATA toll dialing parity within 30 days and to implement a 55% discount on access charges in central offices where it failed to provide such parity.¹⁴ Ameritech discounted access charges by 55% instead of expanding dialing parity beyond the 10% of access lines for which parity had already been implemented.¹⁵

3. Pitfalls of Relying Primarily on Post-Entry Measures to Secure BOC Cooperation in Opening Local Markets

36. My discussion of what can be learned from the experience with intraLATA toll was intended to highlight the dangers of relying primarily on post-entry safeguards to secure BOC cooperation in implementing *new* access arrangements, such as those needed to foster local competition. There I explained why requiring the prior implementation of such arrangements is an appropriate precondition for BOC interLATA entry.

37. As a general matter, exclusive reliance on policing conduct and on undoing competitive

accompanying brief filed in Michigan Supreme Court.

¹⁴ June 26, 1996 Order of the Michigan Public Service Commission. This order considered the effect of the Michigan Telecommunications Act of 1995 ("MTA") on prior-issued MPSC orders dealing with intraLATA toll dialing parity. The MPSC determined that the MTA had amended the prior-ordered conversion schedule but had not voided the earlier orders. This conclusion was repeated in the MPSC's October 7, 1996 Order on Rehearing.

¹⁵ See Ameritech News Release, "Ameritech to cut access rates to long distance companies" (July 26, 1996), and *Ameritech Michigan v. Michigan Public Service Commission and MCI Telecommunications Corporation and AT&T Telecommunications of Michigan, Inc.*, Court of Appeals Case No. 198706, Appellant Ameritech Michigan's Brief on the Merits at 12 ("Ameritech complied with the Commission's June 26, 1996 Order by implementing the 55% access charge discount.") (Jan 2, 1997.) Ameritech also pursued rehearing at the MPSC and appeals at both the federal and state level, arguing that the MPSC orders were unlawful. Ameritech did not challenge the feasibility of implementing toll dialing parity. On December 4, 1996 the Michigan Court of Appeals granted a stay. Oral argument on the merits of the matter was heard October 14, 1997. Despite the pendency of the appeal, Ameritech has now implemented intraLATA toll dialing parity for 70% of Michigan, consistent with the commitments made to the MPSC in its section 271 checklist compliance case. See Case No. U. 11104, Ameritech Compliance Filing at 12 (November 27, 1996).

damage *ex post* is problematic; this is why, for example, antitrust merger policy places such weight on preventing anti-competitive mergers rather than allowing all mergers and attempting to address anti-competitive conduct after the fact. In the present context, authorizing BOC entry prematurely and relying solely on post-entry safeguards to attempt to open BOC local markets to competition is especially dangerous.

38. As my affidavit explained, many of the local competition arrangements required by the Act, such as wholesale support services and network unbundling, are novel and hence offer great scope for gaming and delay by incumbents. Post entry enforcement without adequate prior performance benchmarks would be difficult: the great asymmetry of information between a BOC and outsiders about what constitutes unreasonable delay in implementing new systems is likely to make enforcers leery of imposing heavy penalties for perceived foot-dragging. Indeed, BOCs' potential ability to delay the new local competition arrangements is at least as great as for intraLATA toll dialing parity, because arrangements such as loop unbundling and operations support systems are considerably more complex technologically than was dialing parity. The FCC's experience with trying to pursue Open Network Architecture in the face of incumbent LECs' resistance (Schwartz Affidavit, ¶¶ 145-148) illustrates the difficulties involved.

39. Therefore, there is real value on insisting that a BOC establish the main requisite new systems before being allowed entry. A BOC's own incentive to expedite its interLATA entry will then induce it to implement these systems more efficiently and expeditiously than if entry were authorized and regulators had to then force the recalcitrant BOC to implement these systems.

40. This does not mean that one must dot every "i" and cross every "t" prior to allowing BOC entry. And it also does not mean that a BOC has to do competitors' work for them. But it *does* require that the elements which Congress viewed as important for fostering local competition be in place. Loop unbundling and operations support systems are hardly trivial details, and they would be difficult to enforce if not already in place.¹⁶

¹⁶ In his South Carolina Declaration on behalf of BellSouth, Professor Hausman portrays the FCC as insisting on a "standard of regulatory perfection" and criticizes the FCC for denying Ameritech's Michigan application: "If all significant barriers to local entry have been removed, the Commission should permit BOC entry into long distance markets. However, even if say 95% of the barriers to entry had been eliminated and 5% remained, it would not be in the consumers' best interest to forgo the billions of dollars of consumers

4. The Open Market Standard Ultimately Reduces Intrusive Regulation

41. Some have argued that, as a legal matter, the DOJ Standard entails discretion that lies outside DOJ's proper role under the Act; and that such discretion would result in regulatory micro-management by the DOJ, moving us in the direction of more rather than less intrusive regulation. On the role for discretion, it is mystifying why Congress included in the Act the Public Interest test to be conducted by the FCC and a substantial DOJ role in advising the FCC, if it did not intend to give these agencies discretion. The inescapable—and economically correct—conclusion is that one needs a reality check, in the form of agency “discretion”—rather than a formulaic analysis—to verify that local markets indeed are being opened.

42. The more interesting issue is whether, as critics claim, such discretion indeed entails more intrusive regulation than would a more permissive BOC entry standard and reliance on post entry enforcement to open BOCs' local markets. In fact, the reverse is true. Allowing BOC entry before the main systems for local competition are in place and attempting to mandate their implementation ex post would embroil us in a regulatory morass as it has in the past: having little incentive to comply, the BOCs would fight every requirement, and regulators would be hard pressed to dispute them especially as regards implementation of new arrangements. Moreover, attempting to enforce such requirements by specifying very specific measures would itself be highly intrusive.

43. Judicious use of the § 271 entry authority is superior: the DOJ Standard insists on implementation of certain market-opening measures as a condition for BOC entry, while leaving to the BOCs—whose information on these issues is vastly superior to that of outside enforcers—the flexibility of how to best meet these requirements. The BOCs' incentives to meet these requirements

benefits from long distance competition to achieve the last 5% of entry barrier removal.” (§ 11, footnote omitted.) I completely agree that one should examine the *marginal* benefits and costs of any policy. But Professor Hausman is wrong in suggesting that only minor details remained to be implemented in Michigan; and he sets up a straw man in stating “I recommend that approval be granted as soon as Sections 271 and 272 have been satisfied.” (§42.) We all agree that approval should be granted once Sections 271 and 272 have been met. The point is, they have *not* been met in any of the three BOC applications to date, and the remaining barriers cannot be accurately portrayed as minor. (See Section C below.)

efficiently and expeditiously will be far greater—hence the need for regulatory micro-management will be less—if BOC interLATA entry is conditioned on the local market first being open to competition.

44. In short, the DOJ's entry standard will greatly reduce the need for future regulation. By doing more to open local markets to competition now, it permits a more rapid move towards substantially lighter regulation later; indeed, this is the underlying philosophy of the Act's entire local competition provisions. A more permissive BOC entry standard ultimately would invite far more micro-management.

C. The Open Market Standard Does Not Unduly Delay BOC InterLATA Entry

45. It is important to be clear about the workings of the DOJ Standard, in order to understand why the Standard does not impose undue delay of BOC entry.

1. Assessing Market Openness: No Metric Tests or Other Rigid Markers

46. Kahn and Tardiff portray my standard accurately: “[Schwartz’s] preferred metric is the presence of competition (par. 20). In situations where rapid competitive entry was not economic, he would allow the RBOCs to rebut the presumption that their actions were responsible for the delay (par. 21).” (Kahn and Tardiff, ¶ 60.) This approach is no more than common sense: the best evidence that the local market has indeed been opened to competition through all three entry modes—facilities, resale, and unbundled elements—is to observe such competition on a meaningful scale. Failing to observe this for one or more of the entry modes is not taken as proof that the market has not been opened. Rather, it calls for further inquiry to satisfy oneself that the lack of entry is not due to lingering artificial barriers. The BOCs, who would be in the best position to demonstrate that they have indeed removed artificial barriers under their control, would bear the burden of proof. Such a shifting of presumptions in light of observed market outcomes is neither novel nor unreasonable.

47. ***No metric tests.*** Contrary to some claims, the DOJ Standard does *not* require incumbents to lose any specified number of customers. It does require adequate demonstration that incumbents' wholesale support systems be capable of permitting large numbers of customers to switch to competitors reasonably rapidly and smoothly should customers wish to switch. Such switching capability is critical. Since the vast majority of local subscribers are currently customers of the incumbent, if switching of customers is impeded then entry—through any of the three modes—would be stopped dead in its tracks. In California, for example, MCI and AT&T's efforts to enter the market were frustrated when PacBell's systems for processing resale orders broke down, causing substantial delays before a customer could be switched to a competitive carrier and leading those companies to end their marketing campaigns.¹⁷

48. A BOC's mere assertion that the relevant systems are ready to go obviously should not suffice. While the best evidence of such systems' capability would come in the form of observing actual competitors making significant use of such systems, both the DOJ and the FCC have made it clear that other evidence also would be acceptable. Such evidence, can include: experience in other states using the same system(s); carrier-to-carrier testing; independent audits; and, if these options are not available, even self testing by the BOCs.¹⁸

49. ***Observing all three entry modes.*** Professors Gilbert and Panzar write:

"We however respectfully disagree (with Schwartz ¶ 20) . . . that '*use on a commercial scale of the new access arrangements needed to support all three modes of local entry envisioned in the Act [facilities-based, unbundled elements and resale] demonstrates that competitors are obtaining what they need from the BOC.*' A requirement to show checklist compliance for all three entry modes would be contrary to conventional economic theory. The dispersion of actual entry between the three modes depends critically on the prices and conditions for

¹⁷ See MCI v. PacBell, Cal. PUC No. 96-12-026 (Sept. 24, 1997), at 27 (finding that MCI ceased marketing after PacBell built up backlogs of 4,000 to 5,000 orders and that, by PacBell's own admission, its systems did not offer their competitors resold services at parity).

¹⁸ See DOJ Oklahoma Evaluation, App. A, 81-89; DOJ Michigan Evaluation 22-23.

the UNEs and resold service from the incumbent. . . .” (Gilbert and Panzar Reply, ¶ 9.)

50. I fail to see why there is disagreement. I made it clear in my affidavit that:

“Opening the market does not require evidence of local competition of all forms and in all regions of a state. . . . (Schwartz Aff., ¶ 19.) . . . If sufficiently diverse competition fails to develop, . . . one possibility is simply lack of interest by entrants in pursuing certain entry modes in certain regions. (Schwartz Aff., ¶ 21). . . . if we are successful in ensuring that incumbents make available unbundled network elements at prices reasonably close to incremental cost and if such arrangements work smoothly, then it would be wasteful to insist that entrants build entirely their own facilities.” (¶ 170.)

51. Precisely for these reasons, I said that observing all three entry modes on a significant scale would be *sufficient* to establish that the market has been opened to this mode of entry; I did *not* state that it was *necessary*. Rather, it shifts the presumption: “...we do not expect to see all forms of competition everywhere. However, if sufficiently diverse competition is not observed, . . . it is important to ascertain that competition is not being stifled by artificial barriers. . . . Reversing this presumption requires verifying that the main elements of an open market indeed are in place.” (¶ 179.)

52. Professors Gilbert and Panzar also criticize this approach of shifting presumptions, by arguing that one could not hope to observe all three entry modes concurrently: “A requirement to show checklist compliance for all three entry modes would be contrary to conventional economic theory (because only the most profitable mode will be chosen).” But they overstate the case. It is perfectly plausible to observe all three entry modes concurrently, for at least two reasons.

53. First, a given entrant may well find that different entry modes are best suited for serving different classes of customers (*e.g.*, small residential v. large business) or different geographic regions (*e.g.*, rural v. urban). Such a pattern is not unlikely given that the Act stipulates different pricing rules governing unbundled network elements, and resale, and that cost conditions vary for serving different regions or different customer classes. Thus, an entrant may prefer to serve: low volume users by reselling the incumbent’s services; medium volume users through unbundled loops; and high volume

users by building its own facilities.¹⁹

54. Second, entrants are heterogeneous in the skills that they bring to the market and in what they require from incumbents. Thus, an entrant whose comparative skills are in retailing may opt to pursue resale, while another who plans to offer innovative vertical services may prefer to provide its own switch and lease other unbundled elements.

55. Indeed, we do observe all three entry modes attempted in the same state. In Michigan, Brooks Fiber serves some customers entirely over its own facilities, and others over unbundled loops leased from Ameritech; and other entrants, such as USN and AT&T, entered through resale.²⁰ Entrants are also employing all three entry paths in New York.²¹

2. Meeting the Standard is Largely Within BOCs' Control

56. Kahn and Tardiff, while accurately characterizing the DOJ Standard, argue that it would be extremely contentious and unworkable: "Rather than requiring regulators to satisfy themselves only that 'the requisite *arrangements* necessary to open the local market are made available...' it would require them additionally to assess the degree to which that availability has *proved effective*—that is, whether 'meaningful local competition' has 'emerged' and, if not, 'why'—both complicated questions." (§ 65) This alleged vagueness "... gives opponents of RBOC entry into interLATA

¹⁹ The greater a customer's volume, the greater the traffic-sensitive charges an entrant would pay the incumbent for leasing its switch; to avoid these charges, the entrant may prefer serving medium volume users not through resale but through its own switch, while leasing the incumbent's loop. For high volume customers, such as large businesses in dense business centers, the entrant may prefer building entirely its own facilities, including loops, *e.g.*, because this allows the entrant better quality control and greater ability to customize and vary services later.

²⁰ Application of Ameritech Michigan Pursuant to Section 271, CC Docket No. 97-137, Evaluation of the Department of Justice at 31-32 and Appendix B (June 25, 1997).

²¹ In the Matter of the Application to the FCC by New York Telephone for Approval to Provide In-Region InterLATA Services in New York, Vol. 1. Filed with the NYPSC February 18, 1997. (As in Michigan, use of unbundled elements was in combination with the entrant's own facilities—no BOC is yet providing a "platform" of all the unbundled elements.)

markets new opportunities to use the regulatory process to delay that entry.” (§ 63.)

57. To some extent, our disagreements are semantic. The surest way to confidently ascertain that arrangements have truly been made available is to observe meaningful local competition. I know of no other easy way to ascertain this. Thus, if meaningful local competition fails to develop, there is no escaping the admittedly complex inquiry as to whether the market is open..

58. Though I am sympathetic to Kahn and Tardiff’s concerns that complexity and vagueness offer scope for gaming by opponents of BOC entry, it is not opponents who decide whether to authorize BOC entry. One must also remember that a permissive BOC entry standard also would encourage abundant gaming— by the BOCs against local entrants. And whereas delaying BOC interLATA entry will not stop other entities from entering that market, delays by BOCs in opening their local market will substantially impede the development of local competition. Let us not forget—it is the BOCs not the IXC’s who control the key bottlenecks in telecommunications.

59. Finally, compliance with the DOJ standard need not unduly delay BOC interLATA entry. It entails steps that are largely under a BOC’s control.

60. To the extent BOCs are complaining about their interLATA entry being delayed, experience to date shows that it is *not solely* because of the public interest standard and the DOJ’s examination of whether local markets are fully and irreversibly open to competition. SBC’s Oklahoma application was denied because SBC failed to meet the Track A or B threshold tests; Ameritech’s Michigan application was denied because Ameritech failed to meet checklist requirements such as OSS for resale and for unbundled elements, adequate nondiscriminatory interconnection, and provision of unbundled transport. I recognize that future situations may arise where a BOC has met the other minimum legal criteria but, because of the continued existence of *significant* additional entry barriers, its local markets are not fully and irreversibly open to competition. If such a situation arose, I would conclude that denial of the application would still be justified, for reasons discussed in my original affidavit (Section V.D, especially ¶¶ 189-190). But to date, there is no basis for suggestions that the DOJ’s entry standard is to blame for denial of BOC interLATA entry.